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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,827	03/24/2000	Domenico Orzi	333768-100001	2029
34026	7590	07/22/2004	EXAMINER	
JONES DAY			CHANG, AUDREY Y	
555 WEST FIFTH STREET, SUITE 4600			ART UNIT	
LOS ANGELES, CA 90013-1025			PAPER NUMBER	
			2872	

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/535,827

Applicant(s)

ORZI ET AL.

Examiner

Audrey Y. Chang

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 5-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 5-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 13, 2004 has been entered.
2. This Office Action is also in response to applicant's amendment filed on January 13, 2004, which has been entered into the file.
3. By this amendment, the applicant has newly added claim 27.
4. Claims 1-2 and 5-27 remain pending in this application.
5. The rejections to claims 5-14, 15-24, 25 and 26 under 35 USC 112, first paragraph, set forth in the previous Office Action dated December 28, 2001 *are withdrawn*.
6. The rejections to claims 5-14, 15-24, 25 and 26 under 35 USC 112, second paragraph, set forth in the previous Office Action dated December 28, 2001 *still hold*.

### *Response to Amendment*

7. The amendment filed January 13, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: **newly added claim 27** recites a transparent construction including a first and a second optical thin films that is capable of making a predetermined pattern of reflected light being visibly perceptible when viewed from the front surface of a substrate, that supports the thin film layers, and imperceptible

Art Unit: 2872

when viewed from the back surface of the substrate. The specification **only** give supports for such imperceptibility from the back surface *by adding either metallic layers at the back surface of the thin film layers or by having color-absorbing substrate*. The specification teaches explicitly that by simply having the thin film layer the reflectance will actually be the same when viewed from both sides of the substrate, (please see column 4, lines 44-52).

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. **Claims 5-14, 15-24, and 25-27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.**

Claims 5, 15, 25, 26 and 27 recite that the first and second reflecting **areas** cooperate to define a pattern that is *visibly perceptible* when viewed from the front side and *imperceptible* when viewed from the back side of the substrate. Claims 5 and 26 further recite that the transmittance characteristics of the transparent construction through the two reflecting *areas* are substantially the same. The specification **fails** to teach adequately as **how could** by having partially reflective coatings on the first and second areas would achieve such. The essential element for making such perceptible and imperceptible characters is **adding metallic layers with different thickness** at back surface of the thin film layers. The applicant is respectfully noted that the specification **NEVER** teaches that the thin film coatings by itself, (without the

Art Unit: 2872

metallic layers and/or absorbing substrate), is capable of achieving *same* optical transmission characteristics (while having different reflection characteristics), (as argued by the applicant in the Remark of page 7) nor is capable of providing pattern that is perceptible when viewed from the front surface and imperceptible from the back surface, (Figures 4 and 5 show such explicitly). *This is simply impossible for the thin film coating.* In fact, the applicant specifically teaches that the *reflectance* and likewise the *transmittance* of the thin film coatings will be the same and be seen from both sides of the substrate, the only way to make the two reflecting **areas** (not thin film coatings) with substantially the same transmittance characteristics, (therefore the pattern being imperceptible viewed from the back surface) is by adding metallic layer (such as chromium layer) with **different layer thickness**, (as explicitly taught by Figure 7 and Table 1). These claims as stand now are therefore **not enabling** the claimed characteristics.

Claims 9 and 19 recite that the predetermined could be “devices” that is not supported by the specification, since it fails to teach how could the pattern of the filter elements be “devices”.

Claims 6-14, and 16-24 inherit the rejection from their respective based claim.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**11. Claims 5-14 and 15-24 and 25, 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The alternative phrase concerning the transparent substrate being selected from the group consisting various elements recited in claims 5, 15, 25, 26 and 27 is indefinite since the elements in the group ***are not equivalent to each other***, which therefore renders the scope of the claims

Art Unit: 2872

unclear. It is implicitly true that a plastics film is *not equivalent* to an architectural glass. A windscreen is *not equivalent* to a lenses. A skylight is *not equivalent* to a visor, etc.

Claims 9 and 19 recite that the predetermined pattern could be “devices” is confusing and indefinite since it is not clear what is considered to be devices here. The scopes of the claims are therefore unclear.

The alternative phrase concerning the pattern being selected from the group consisting various elements recited in claims 9 and 19 is indefinite since the elements in the group *are not equivalent* to each other, which therefore renders the scope of the claims unclear. The specification and the claims fail to define the term “devices” which therefore fail to give the proper scope for the claims.

Claims 6-14 and 16-24 inherit the rejections from their respective claims.

The phrase “a first metallic thin film” recited in claim 23 and the phrase “a second metallic thin film” recited in claim 24 are indefinite since it is not clear how do they relate to the “first metallic thin film” and the “second metallic thin film” recited in their **based claim 15**. Claim 15 has been amended to include the phrases “first metallic thin film” and “second metallic thin film”.

The phrase “reflecting at least a first waveband”, the phrase “transmitting at least a first waveband”, the phrase “reflecting at least a second waveband”, and the phrase “transmitting at least a second waveband” recited in claim 27 are confusing and indefinite since it is not clear if the first waveband (or the second waveband) is the same or not for the reflecting and transmitting characteristics of the optical coating. If they are the same waveband, it is then not clear how can the same waveband being reflected and transmitted at the same time by the same optical coatings.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 5-14, 16-24, 25, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Apfel et al (PN. 3,679,291).**

Apfel et al teaches a *filter with neutral transmitting multiplayer coating* wherein the filter, which serves as the *transparent construction*, comprises a *transparent substrate* (21, Figure 1), a first *multiplayer coating* (23) including a *dielectric thin film layer* (27) and a *metallic layer* (26) wherein the dielectric thin film layer is *overlaying* the metallic layer. Apfel et al teaches that the thin film dielectric layer is capable of partially reflecting incident light in the *visible* wavelength range which therefore makes the filter appears to have certain color as viewed from the front surface of the substrate, (please see Figures 2 and 4). Apfel et al further teaches that by adding the metallic layer (26) the filter will have an *asymmetric reflectance* or a *neutral transmittance* as viewed from the back surface of the substrate such that the reflected color appearance at the front side will not be viewable or imperceptible when viewed from the back surface of the substrate, (please see Figures 3 and 5, the Abstract, columns 2-3). The metallic layer is understood to have certain predetermined thickness.

Apfel et al teaches that the filter design may be applied to **sunglasses**, and may be applied to many **architectural** applications, including the application for providing greater illumination intensity of light in a building on one side than on the other side as from the *sun*, (please see column 9, lines 41-54). This implies that the substrate could be the lenses for sunglasses or architectural designs for allowing *sun*

Art Unit: 2872

illumination to enters the building, which implicitly includes architectural glasses, architectural windows or sunroof.

This reference has met all the limitations of the claims with the exception that it does not teach explicitly to include a second multiplayer coating that partially reflecting a second waveband in the visible light range, such that the reflection of light from the first and second multiplayer coatings form a predetermined pattern. However Apfel et al **does teach** that the filter can also be applied for **decorative** purposes in which **colors** (i.e. more than one color) obtained from the filter may be utilized for matching the **décor** of the surrounding, (please see column 9, lines 56-58). This either implies or would be an obvious modification to one skilled in the art to modify the *transparent construction* to include at least a second multiplayer coating with strong color reflection (of a different color from the first coating, to create multiple colors appearance) and a neutral transmittance, for the purpose of providing desired *decorative multiple* color pattern for either to match to the décor, i.e. implies a pattern, or an independent decorative pattern.

With regard to claims 7-8, and 17-18, Apfel et al teaches that the substrate may include sunglasses or architectural applications such as window but this reference does not teach explicitly that the substrate be selected from windscreen or visor etc. However it has been held that a recitation with respect to the manner in which a claimed apparatus is ***intended to be employed*** does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Madham, 2 USPQ2d 1647 (1987). It would have been obvious to one skilled in the art to apply the filter design to use in windscreen, windows for vehicle or for visor, since it only requires one to use these elements as the substrate, for the benefit of providing in at least the decorative purpose a desired strong color reflection pattern on one side of the substrate and neutral transmittance from the other side.



Art Unit: 2872

With regard to claims 9-12, and 19-22, Apfel et al does not teach explicitly that the decorative pattern may be in the form of a logo. However this modification is considered to be obvious matters of design choice to one skilled in the art to obtain desired decorative pattern.

### *Reissue Applications*

14. **Claims 5-27 are rejected under 35 U.S.C. 251 as being an improper recapture of *broadened claimed* subject matter surrendered in the application for the patent upon which the present reissue is based.** See *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the **broader scope** surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

The applicant is respectfully noted that the claims 5-27 are broaden in scopes by *simply* using *first and second optical coatings* with thin film based layer to define the first and second reflecting **areas**, (**without using metallic layer of different thickness at different reflecting areas**) to achieve reflection pattern perceptible from the front surface of the transparent substrate and imperceptible from the back surface of the substrate. This feature is even NOT support by the specification, and the specification specifically teaches such feature is NOT POSSIBLE.

***Response to Arguments***

15. Applicant's arguments filed January 13, 2004 have been fully considered but they are not persuasive. The newly submitted claim has been fully considered and it is rejected for the reasons stated above.

16. Applicant's arguments, based on Figure 3, concerning using the multiplayer dielectric thin film **alone** to achieve the perceptible/imperceptible feature are wrong. Figure 3 **ONLY** demonstrates a multiplayer structure for the optical thin film to provide partial reflection and transmission characteristics as shown in Figure 4. This arrangement alone **WILL NOT** be able to provide perceptible/imperceptible viewing pattern just as the specification goes on to explain in the paragraph (column 4, line 44 to column 6). The specification specifically states that the multiplayer thin film will have the reflectance (likewise the transmittance) be viewed from both side, and without using a matching colored substrate, the optical characteristics of the multiplayer thin film is shown in Figure 4, (which no imperceptibility is possible) and with the matched colored substrate, the optical characteristics is shown in Figure 5 that the color pattern is imperceptible from the back side. Also the specification discloses that the substantially same transmission (as shown in Figure 7) is achieved **ONLY** by adding metallic film with **different thickness**. The specification completely **fails** to provide the enablement for the thin film coating *alone* to achieve the perceptible/imperceptible feature. For this completely contradicts the principle of thin film coating.

17. Applicant's arguments, which state that the present claims 5-27, do not broaden the scopes of the claims the examiner respectfully disagrees. The scopes of the claims have been extended to a transparent construction that using thin film coating alone without metallic layer of different thickness at different reflecting areas to achieve the visual perceptible/imperceptible effect is firstly, not supported by the specification, secondly, technically impossible and thirdly distinct from the species of the originally

Art Unit: 2872

submitted claims. The applicant even admits that the set claims are "broader" in scope, (please see the Remark page 7, lines 2-7).

*Allowable Subject Matter*

18. Claims 1 and 2 appear to be allowed over the prior art references of the record.

The following is a statement of reasons for the indication of allowable subject matter: of the prior art references considered none has disclosed an optical filter arrangement, with the claimed structures, that includes a first and second reflective layer and *at least one transmission balancing means* that is comprised of *at least a first metallic thin film of predetermined thickness* and a *second metallic thin film* of the **same material** as the first metallic thin film and of a **predetermined thickness which is different** to the predetermined thickness of the first metallic thin film. The first and second reflective layers reflects light of different wavelength and such reflective pattern is perceptible by an observer from the front side of the filter arrangement and is imperceptible by the observer from the opposite side of the filter arrangement.

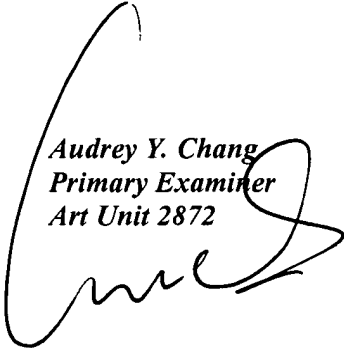
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2872

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*Audrey Y. Chang*  
*Primary Examiner*  
*Art Unit 2872*



A. Chang, Ph.D.